



2. Equipment required

Dynal Magnetic Particle Concentrator - Dynal MPC (see section 5.3).

Micropipettors

(suitable for pipetting volumes of 20-40µl and 200µl).

Disposable pipette tips, 1.5ml Eppendorf® test tubes or flexible 96-well microplates.

65°C water bath or heating block (optional: see section 5.5).

Vortex mixer.

Phosphate Buffered Saline (PBS), pH 7.4

137 mM NaCl

2.7 mM KCl

4.3 mM Na₂HPO₄

1.4 mM KH₂PO₄

(for dried blood samples and cultured cells: see section 5.1)

3. Principle

The process of DNA isolation relies upon cell lysis to release the DNA and adsorption of the DNA to the surface of the Dynabeads DNA DIRECT™, during a brief incubation at room temperature. This is followed by magnetic separation of the intact DNA/Dynabeads DNA DIRECT™ complex and subsequent washing to remove any residual contaminants and potential PCR inhibitors from the isolated DNA. The complex may then be simply resuspended for direct use in downstream PCR reactions. Alternatively, the DNA may be eluted from the Dynabeads DNA DIRECT™ following a short incubation at 65°C.